

SOME EVIDENCE FROM BIAO MIN ON THE INITIALS OF PROTO-MIENIC (YAO) AND PROTO-HMONG-MIEN (MIAO-YAO)*

David B. Solnit

University of California, Berkeley

1. PREFATORY NOTES

1.1 Terminology and reconstruction. The language family under discussion here is Hmong-Mien (H-M), consisting of the two branches Hmongic (Hm) and Mienic (Mn).

The family is also known as Miao-Yao, the two branches being Miao and Yao.

All initial consonants are assumed to have a three-way manner distinction. For obstruents these are voiceless unaspirate, aspirate, and voiced; the corresponding manners for sonorants are preglottalized, voiceless, and voiced. In addition, obstruents may be [\pm prenasalized]. Using labials as an example:

p	mp	ʔm
ph	mph	m̥
b	mb	m

Consonant types in the same horizontal row have the same effect on tone splitting.

1.2 Subgrouping and sources. The following gives the subgroup, its abbreviation, the representatives cited for each, and the source used. Transcription is as in the original unless otherwise noted.

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Hmongic Branch

黔东南 Qiangdong or East (EHm)	养蒿 Yanghao (YH), Guizhou, from Wang 1979, Wang and Mao 1995
湘西 Xiangxi or North (NHm)	吉卫 Jiwei (JW), Hunan, from Wang 1979, Wang and Mao 1995
川黔滇 Chuanqiandian or West (WHm)	White Hmong of Laos-Thailand, from Heimbach 1969; 宗地 Zongdi (ZD), Guizhou, from Wang 1979, Wang and Mao 1995

Subgrouping uncertain, probably Hmongic

Bunu 布努	瑶里 Yaoli, Guangxi, from Wang and Mao 1995
Pa Hng 巴哼 Baheng	文界 Wenjie, from Wang and Mao 1995

Mienic Branch

Yu Mien (YM)	Downer 1961 and 1973 (“Highland Yao”); Lombard 1968 and Purnell 1970 (dialect of Chiangrai, Thailand); Mao, Meng and Zheng 1982 (龙胜 Longsheng, Guangxi). I use a normalized transcription, the major changes from the cited sources being the following: <table><tr><td><i>Normalized</i></td><td><i>Downer</i></td><td><i>Mao, Meng and Zheng</i></td></tr><tr><td>č čh ĵ</td><td>kj khj qj</td><td>tɕ tɕh dɕ</td></tr><tr><td>iə uə</td><td>iə uə</td><td>wo je</td></tr></table>	<i>Normalized</i>	<i>Downer</i>	<i>Mao, Meng and Zheng</i>	č čh ĵ	kj khj qj	tɕ tɕh dɕ	iə uə	iə uə	wo je
<i>Normalized</i>	<i>Downer</i>	<i>Mao, Meng and Zheng</i>								
č čh ĵ	kj khj qj	tɕ tɕh dɕ								
iə uə	iə uə	wo je								
Kim Mun (KM)	Savina 1926 ¹ (mostly), Wang and Mao (occasionally)									
Biao Min (BM)	Dialect of 双龙 Shuanglong, 全州 Quanzhou County, Guangxi, from my notes. For the transcription see Solnit 1985; here I retain the narrower transcriptions [t̚ tɕ] for the initials written /c cy/ in the 1985 paper, and I use [j] for the palatal semivowel.									
Dzao Min	Mostly not represented; a few forms are from Wang and Mao 1995									

¹ Savina's *quốc-ngữ* transcription is retained, except for tones. Note the following probable equivalences:

<tg>	tɕ, ɕ	<ê>	ɛ	<ao>	a:u
<xl>	s (perhaps phonetically [ʃ])	<ɛ>	ɛ	<ay>	ai
<s>	ʃ, ɕ	<ô>	o	<ai>	ai
		<o>	ɔ	<au>	au

2. STOP + LIQUID CLUSTER INITIALS

It is a truism of comparative Hmong-Mien that Hmongic preserves initial contrasts and simplifies rhymes, while Mienic preserves rhyme contrasts but simplifies initials. This could also be said of the two proto-languages, although proto-Mienic has nearly the full inventory of initial manners, its simplification being carried out more on the inventory of places of articulation.

The Mienic languages this truism is based on are Yu Mien (YM) and Kim Mun (KM). Biao Min (BM), while still classified as Mienic, is more “Hmongic-like”, in that it simplifies rhymes, although not as much as Hmongic. Compare the YM and BM vowel and final-consonant inventories:

YM	finals	i u m n ŋ p t ʔ
	vowels	i e ε a a: ɔ o u
BM	finals	i u n ŋ
	vowels	i ε a ə ² ɔ u

BM preserves initial clusters of stop plus liquid better than either KM or the better-studied dialects of YM (Downer, Lombard). Some YM dialects do preserve *-l-*, including some cited in Haudricourt 1947-50; more recently, Theraphan’s (1993) excellent study of comparative Mienic includes a YM language spoken in 阳朔 Yangshuo³ County, Guangxi (her “Northern Mien”) that includes many medial *l*’s.

BM also has a prepalatal obstruent series that is phonemically independent,⁴ unlike the phonetically similar YM series, which can be analyzed (as by Downer) as allophones of velars before /j i/. The BM prepalatals allow us to expand the number of place (of articulation) series reconstructable for proto-Mienic, but there are few surprises when the comparison is carried back to proto-Hmong-Mien. In contrast, the BM words with velar clusters include a set whose Hmongic cognates have little or no trace of the liquid: here BM preserves initial clusters better than Hmongic. We will examine the cluster initials in this section.

2.1 Labial clusters The labial clusters fall into two sets, easily interpreted as contrasting *-ɾ-* and *-l-* in pHm and pH-M; pMn has merged the two. (Underlining indicates irregularities)

² See Solnit 1987 on the phonemic status of this vowel.

³ “Yangshou” in Theraphan.

⁴ Note the following Biao Min contrastive set: *tjau*⁴ ‘pickling jar’, *lau*¹ ‘mushroom’, *tcau*³ ‘claw’, *kjau*³ ‘land snail’.

	YM	KM	BM	pHm	WHm	NHm	EHm
FIVE	pja ¹	pêa ¹	pla ¹	*pr[3]A	tʃi ¹	pza ¹	tsa ¹
HOUSE	pjau ³	pêau ^{3/5}	pla ³	*pr[5]B	tʃe ³	pzu ³	tse ³
FISH	bjau ⁴	bêau ^{4/5}	bla ⁴	*mbr[5]B	ntʃe ^{4/7}	mzu ⁴	ze ⁴
BMB.SHOOT	bjai ⁶	bêay ⁶	blai ⁴	*mbr[11]C	ntʃua ⁶	mza ⁶	za ⁶
HOT-SPICY	bjat ⁸	biat ⁸	blan ⁴	*mbr[3]D	ntʃi ⁸	mzei ⁸	za ⁸
EAR	mu ²⁻	bo ^{3/5-}	blau ²	*mbr[5]A	ntʃe ²	mzu ²	ze ²
NOSE	bjwi ⁶	blui ⁶	bli ⁴	*mbr[19]C	ntʃw ⁶	mza ⁶	ze ⁶

r-clusters

	YM	KM	BM	pHm	WHm	NHm	EHm
FOUR	pjəi ¹	piêy ¹	pləi ¹	*pl[16]A	plau ¹	pzei ¹	lu ¹
RICE PLANT	bjau ²	blau ²	blau ²	*mbl[4]A	nple ²	nu ²	na ²
TONGUE	biət ⁸	biet ^{7/8}	blin ⁴	*mbl[6]D	nplai ⁶	mja ⁸	ni ⁸
STICKY RICE	bjut ⁸	blot ⁸	blan ⁴	*mbl[15]D	nplau ⁸	nu ⁸	nə ⁸

l-clusters

Chang (1976) notes that the contrast *-l/-r-* is preserved in the WHm dialects Ke-cheng and Zongdi, as these Zongdi forms demonstrate: *plə^{1a}* ‘four’, *mplæ²* ‘rice plant’, *mple⁸* ‘tongue’ versus *pzi^{1a}* ‘five’, *pzæ^{3a}* ‘house’, *mpzæ²* ‘ear’, *mpzi⁸* ‘spicy’ (Wang writes *z* where Chang’s source has *r*; the sound is probably a retroflex approximant with a certain amount of friction noise).

Wang (1979) further reconstructs a series of clusters made up of labials followed by *z*.⁵ While *z* does occur as a simple initial (both in Wang’s pHm and in many modern Hm languages), it does not form clusters with initials at other places of articulation. Mienic does not reflect this medial *z* with any consistency:

	YM	KM	BM	pHm
FRUIT	piəu ³	pêau ^{3/5}	pjau ³	*pʒ[2]B
MEND			bja ³	*mpʒ[3]B
NAME	buə ⁵	bu ^{3/5}	bau ⁵	*mpʒ[4]C
HAND	puə ⁴	pu ⁴	pau ⁴	*b[4]B

This **-ʒ-* is best seen as palatalization, in some cases caused by a medial *-j-*, in others by a high front nuclear vowel. In any case it is clearly not a liquid.

⁵ Replaced in Wang and Mao 1995 by clusters with *-ts-*: **pts mpts* etc.

2.2. Velar clusters Turning now to the BM velar clusters, their cognates in YM are the palatals /č j/, and in KM /kl~k(y)/, with no obvious conditioning factor for the KM variation. As with the labials, we can simply reconstruct *pMnc* l-clusters **/kl khl gl ŋkl ŋgl/*, the *-l-* being chosen over *-r-* only to reflect the phonetic value of the BM and KM reflexes. The correspondences with Hmc fall into three groups.

The first two are not problematic:

	YM	KM	BM	pHm
PEACH	caau ²	clao ⁴	kla ²	*G[9]A
BACK (small of)	caai ³	clai ³	kla ³	*q[11]B
EAGLE	caŋ ³	clang ¹	klan ³ 'crow'	*q[26]B
ROLL (v)	jaan ⁵	cling ^{3/5}	klin ⁵	*q[25]B
DOG	cu ³	clô ^{3/5}	klu ³	*q[4]B
EGG	cau ⁵	kêau ^{3/5}	kla ⁵	*q[4]C
BEAR (n)	cəp ⁷	kiop ^{7/8}	--	*q[6]D~q[
NECK	caŋ ¹	clang ¹	klan ¹	White Hm da ¹ , Green Hm klan ¹ , XJ tŋaŋ ¹ , SM tŋaw ¹ , Bunu _{QBN} tŋəŋ ^{1 6}

Set 1

	YM	KM	BM	pHm
LAUGH, JOKE	cat ⁷	kiet ^{7/8}	klan ⁷	*[l _o [13]D
SIX	cu? ⁷	kiô ¹	klô ⁷	*[l _o [15]C
DOOR	cœŋ ²	keng ²	kle ²	*d[32]A
FAT (adj)	cun ⁶	cun ⁶	klin ⁴	*d[25]C
LEAN on stick	--	clui ^{1 7}	gla ⁴	*nd[3]C
RETURN STG	caau ³	clao ^{3/5}	kla ³	*[23]B '回'
CLAW, SHELL	cəu ⁴ (L)	--	gli ⁵	*[16]C
PHEASANT	--	--	gli ^{4a}	*t[18]D

Set 2

BM does occasionally show a shift *-l-* to *-y-*, as in the following two etyma, which otherwise fit in Set 1:

⁶ Not in Wang 1979, pH-M **ql* in Wang and Mao.

⁷ KM *cluil* 'support de marmite, support de lampe'.

	YM	KM	BM	Hm
BLACK, DARK	ceʔ ⁷	kia ⁷	kja ⁷	*q[23]A
PICK, PLUCK	ceʔ ⁷	cho ⁷	kje ⁷	White Hm de ⁵ , Green Hm kle ³ , Bunu ʈu ⁷

Theraphan cites a Mien⁸ form *kliʔ*⁴⁵ (D1) ‘black’ preserving the medial. The West Hm forms cited above for ‘pick’ are regular for **ql*; a possible relation to Wang’s root **n*[[16]C] should also be noted. Another such set is BM *kjen*², *cem*², *kim*²~*kêm* ‘mountain’, which if cognate to W-GHm *ʈoŋ*¹ ‘id.’ may fit in Set 2.

For Set 2 Chang reconstructs pHmc **tr*, *dr* (in place of Wang’s **tl*, *dl*); however at the pH-M level several considerations argue in favor rather of velar or uvular place for the stop component. The Mienic cognates of **tr* have velars, and *kr* > *tr* is more likely than *tr* > *kr*. Even within pHm one could argue from pattern congruity: to use Chang’s reconstructions, pHm has **pr*, *pl*, *tr*, *ql* but no **tl* or **qr*; **pr*, *pl*, *qr*, *ql* would be more symmetrical:

pr	tr	-	pr	qr
versus				
pl	-	ql	pl	ql

Finally, it has been pointed out that the H-M numerals 6-9 appear to be cognate to Tibeto-Burman (presumably by borrowing); if this is so, the TB forms for ‘six’ support -*r*- rather than -*l*-. In TB the -*r*- is initial, with both *kr*- and *tr*- forms resulting from prefixation (e.g. Written Burmese *khrauk*, Written Tibetan *drug*); the H-M form can be assumed to relate to the version with velar prefix.

The choice by both Chang and Wang of **ql* rather than **kl* is presumably due to the occurrence of the former in modern reflexes (although Chang transcribes *kl*- in Ma-chia-t’un: a shift *ql*- > *kl*- is easier to explain than *kl*- > *ql*-). Neither reconstructs a velar/uvular contrast in clusters; we will return to the velar/uvular contrast at the end of this paper. In any case, the way looks clear for reconstructing medial *l* for Set 1 and medial *r* for Set 2.

⁸ The form is identified as “JX” i.e. Jinxiu county but this may be an error for YS = Yangshuo.

The problem is caused by the third set, which has *-l-* in BM and Yangshuo, but not in KM or in any Hmc (with the possible exception of SHUTTLE; see note below):

	YM	KM	BM	pHm	WHm	NHm	EHm
ROAD	cau ³	kiau ²	kla ³	*k[4]B	ke ³	ku ³	ki ³
INSECT	ceɛŋ ¹	keŋ ¹	kle ¹	*k[26]A	ka ¹	ci ¹	kaŋ ¹
HORN, CORNER	cɔŋ ¹	kionŋ ¹	klɔ ¹	*k[23]A	ku ¹	ce ¹	ki ¹
GNAW	--	--	khləŋ ³	*k[18]D	kau ^{4/7}	ku ⁷	kɿ
HOT, BURN	cəm ¹	kiom ¹	klan ¹	--	ku ¹ (cf. Bunu khuŋ ¹)		
RAVINE	--	--	khle ¹	*k[30]A	kau ^{4/7}	-	koŋ ¹
PRICKLY HEAT	chu ⁵	--	khlu ⁵	*kh[15]D	khau ^{4/7 9}	-	
GRASSHOPPER	cop ⁷	--	klin ⁷	*g[31]A	koŋ ²	-	ku ²
PEN, STABLE	ju ²	go ⁴	glu ²	*ŋg[12]A	nkua ²	-	ŋə ²
YAWN	--	--	klɔ ⁴	*[25]B	nqo ^{4 10}	ŋu	ŋaŋ ⁴
STRAIGHT	koŋ ²	cong ¹	glaŋ ²	*ntɕ[28]A	nca ²	-	-
EMPTY	khuŋ ⁵	khuɔŋg ⁵	khloŋ ¹	--	khon ¹	(Kanao) khonŋ	
SHUTTLE ¹¹	--	glau ^{4/5}	klɔ ⁴	*[25]B	nqo ⁴	naŋ ⁴	ŋaŋ ⁴

Set 3

At the pMn level, Sets 1 and 2 are not distinguished by the available data, although better KM data and/or good Dzau Min data might well support a distinction. Set 3 has no preservation of *-l-* in KM (assuming a special explanation for SHUTTLE), which might be reflected by positing two velar cluster types for pMn, perhaps **-l-* clusters vs **-r-* clusters. But it is at the pH-M level that the three correspondence types sets are solidly distinct; they can be summarized as follows (K is used as a cover symbol for both velars and uvulars):

⁹ 'Itchy'.

¹⁰ 'To swallow'.

¹¹ SHUTTLE has a final nasal indicated by Hmongic, Kiong Nai and probably BM: Wang 1994 reconstructs pHm **NGən^B*, while Wang and Mao 1995 have pH-M **NGen^B* for Hm plus Kiong Nai (they also cite YM of Luoxiang, Jinxiu *gou⁴* in this set, but that form more likely belongs with the KM forms in spite of its irregular loss of medial *-l-*). BM *-ɔ* is however a regular reflex of pMnc back vowel + *ŋ*, as shown by HORN just above, so the BM form fits well with the Hm-Kiong Nai set. The KM forms need separate treatment. Wang and Mao reconstruct **Nglou^B* for their two KM dialects. The KM forms (plus the Luoxiang YM just mentioned) are possibly borrowed from or influenced by a Kadai language, cf. pTai **pr(au)^B*, Sui and Mak *tau⁵* (proto-tone B) 'shuttle'.

	pMn	pHm	pH-M
Set 1.	velar-liquid clusters (KM kl~kj)	uvular-liquid clusters	K+l?
Set 2.	velar-liquid clusters (KM kl~kj)	retroflex stops and clusters	K+r?
Set 3.	velar-liquid clusters (KM kj)	velars and *NG	??

I retain pH-M medial [r] for Set 2 because r-like segments cross-linguistically are often retroflex, accounting for the Hm reflexes; and because of the TB evidence for -r- in SIX. [l] is likewise appropriate in Set 1 as a cause of fairly substantial shifts in Hm to *ʈl* and *ʈl* (the latter in the dialect of 青岸 Qing'an).

There are three possible ways of dealing with the ‘extra’ type 3 at the pH-M level.

1. Increase the number of contrasts in the stop component, in particular by positing a contrast *q:k* before liquids. For example, Set 1 might represent **ql-*, Set 2 **qr-* and Set 3 **kl-*.
2. Increase the number of medials. Purnell (1970) and Benedict (1975) have already reconstructed three liquids:

Hm	Mn	Purnell	Benedict
l	l	*l ¹	*l
l	r	*l ²	*l (“back l”)
r	r	*r	*r

and Benedict reconstructs all three in clusters as well, although his assignments of **kl-*, **kʈl-* and **kr-* to particular etyma do not fit very well into the three correspondence types presented here.

3. Find a conditioning factor in the following vowel or glide. For instance pH-M **ql* might give pHm **k* before front vowels and **ql* before non-front vowels, accounting for Set 3 versus Set 1.
4. Look beyond the simple monosyllable: the three sets may in part reflect a contrast between original clusters and secondary clusters produced by deletion of an intervening vowel from an original disyllabic form; e.g. **kl-* versus **kVl-*.

(1) would raise a problem by implying the existence of two new proto-initials where the correspondences only call for one. E.g. if Set 3 is **kl*, Set 1 is **ql* and Set 2 is **qr*, there should also be a **kr*, otherwise unneeded. In addition, I will suggest below that the velar-uvular contrast is secondary in Hmongic.

(3) is also unattractive. Examination of the vowels in the YM forms (assumed to be the most conservative as to rhymes) does not reveal any striking complementary distribution of vowel types; in fact at the pMn level there is a near-minimal triplet: Set 1 PEACH **glau*^A, Set 2 RETURN **klau*^B, Set 3 ROAD **klau*^B.

In the following section we will consider (2), the reconstruction of a third liquid, after which we will turn to (4), the use of a disyllabic proto-form.

3. HOW MANY PLACE CONTRASTS FOR PROTO-LIQUIDS?

3.1. Simple initials. Proposing a third liquid as medial in clusters immediately raises the question of whether three liquids can be reconstructed in absolute initial position as well. A third liquid is indeed reconstructed for pHm by Wang and for pH-M by Purnell. I will suggest that Wang's, but not Purnell's, can be fitted in with the pattern described above.

The discussion that follows deals only with the place contrast among *r*, *l*, and possibly *ʎ*, and will assume that each of the three may have voiced, voiceless and glottalized manners. I will thus use a single cover symbol for each place, so that e.g. *ʎʎ* stands for *l*, *ʎ* and *ʎʰ*, unless otherwise stated.

3.1.1. Purnell's two l's Purnell reconstructs three liquids based on the following correspondences:

Hm	Mn	Purnell's pMY
*l	*l	*l ₁
*l	*r	*l ₂
*r	*r	*r

(Purnell actually writes superscript numerals; I have converted to subscript to avoid confusion with footnote numbers).

Benedict accepts this pattern but interprets *l*² as *ʎ* ("back l"). The **ʎʎ* contrast is attested in Mn only by KM, in which **r* has become */g/*. As Chao noted in his 1930 study of a KM dialect, initials *l*- and *g*- are in complementary distribution in Chinese loans in that dialect, with *l*- in *Qieyun* Divisions I and II, and *g*- in Divisions III and IV. Since the four Divisions can be roughly interpreted as increasing degrees of frontness, this suggests that KM *g*- is at some level a fronted version of *l*-. We need not go all the way with Haudricourt (1947) in his conclusion that pMn ("la langue commune mun-mien") had only one liquid initial: it is also possible that KM *g*- has two sources, namely (1)

pMn *r and (2) pMn *l before front vowels or semivowels. An examination of the complete set of Purnell’s etyma reconstructed with the two l’s confirms this:

	YM	KM	(pHm)
BELLOWS	lou ⁴	lou ²	
COME	--	lau ^{4/5'}	*l
LONG TIME	lau ²	lau ²	*l
MULE	lɔ ²	lo ²	
OLD	lo ⁴	lɔ ^{7/8}	*l
CLF, HUMAN	laan ²	laan ^{1/2} (YLC)	
MOON	hla ⁵	la ^{4/5'}	*l
BIG	hlo ⁴	lu ⁷	*l _o
BAMBOO	hlau ³	lau ⁶	

*Purnell’s *l₁ (YM l = KM l = Hm *l)*

	YM	KM
TO PLOW	lai ²	ghia ^{y2}
FIELD	liŋ ²	ghing ²
BELL	liŋ ²	ghing ²
IRON	liəʔ ⁷	ghia ⁷

*Purnell’s *l₂ (YM l = KM g = Hm *r)*

There seems then to be no obstacle to positing a shift in KM of *l to *r (later becoming g) before high front vowels; it is true that ‘to plow’ has an /a/ before the /-i/, but the Chinese cognate 犁 *lǐ* has a Fourth Division rhyme, indicating some strong palatal quality in the source form. KM words with g- and non-front vowels do generally correspond to Hm *r: *gong*^{3/5} ‘good’ (Wang pHm *ʔr-), *ghêau* ^{4/5'} ‘nest’, *ghêăng*^{4/5'} ‘village’ (both Wang *r-). In other words, in KM *l merges with *r before front vowels; Purnell’s *l² is an erroneous elevation of a lower-level variant to the status of a proto-phoneme. Only two liquids are needed for the pMn level. The correspondences are as follows:

pH-M	pHm	pMn	KM
*l	*l	*l	l
*l	*l	*l /_[+front]	g
*r	*r	*r	g

3.1.2. Wang's *pHm*. Wang reconstructs for proto-Hmongic the three liquids¹² **r*, **l* and **ʎ* (each with preglottalized, voiceless and voiced manners), *ʎ* being presumably a retroflex liquid. The contrast **l:ʎ* is reflected with consistency in EHm (as *l:l*) and in the 宗地 Zongdi (ZD) dialect of WM (as *l:ʎ*). NHm also has *l:l*, but has cognates in only three out of Wang's fourteen sets with the retroflex. WHm, with the single exception of ZD, has merged the two types as *l*. Purnell handles the EHm contrast in question by reconstructing a palatal medial */-y-/* for his proto-East Miao, relating it to palatal medials appearing in EHm with other initials (*p*, *ph*, *t*, *k*, *m* and others). He does not carry these palatals back to his proto-Miao or proto-Miao-Yao, "due to the many gaps in the Eastern Miao data" and "the apparently random manner in which these clusters [with *-y*] appear" (p. 70). The ZD contrast is not so easily disposed of; in Wang's data may be found one minimal pair, *ʎua^{1b}* 'belt' vs *lua^{1b}* 'scald', plus the following near-minimal sets:

<i>ʎa^{3a}</i> 'hare'	<i>la^{1b}</i> 'bridge'
<i>ʎa^{7b}</i> 'young'	<i>la^{5b}</i> 'rope'
<i>ʎe⁸</i> 'lightning'	<i>le^{7b}</i> 'to slice'
<i>ʎæin²</i> 'sickle; field'	<i>læin^{1a}</i> 'monkey; red'
<i>ʎo^{1b}</i> 'big'	<i>lo^{3a}</i> 'break off (v.i.)'
	<i>lo^{5a}</i> 'mouthful'
<i>ʎoŋ²</i> 'to measure'	<i>loŋ^{3a}</i> 'short'
<i>ʎoŋ⁴</i> 'bury'	

This data makes *l:ʎ* unassailable as a phonemic contrast in ZD; it is, however, worth noting that *ʎ* does not appear with high vowels (*i*, *u*, *ua*), while *l* does not appear with the vowels *ɔ*, *ə*, and *əa*. But this is based on the collection of only 34 ZD forms with *l-* and *ʎ-* that are cited by Wang, and the patterning may be at least partly accidental.

3.2 Using an *l:ʎ* contrast in clusters. A *pH-M* three-way contrast in liquids provides a neat way of accounting for the three velar-liquid cluster types defined above:

¹² The relative simplicity of this pattern is abandoned for proto-Hmong-Mien by Wang & Mao 1995, which instead of **r* reconstructs velar+*l* clusters. Contrasting uvular+*l* clusters are retained for the correspondences described here as Set 1.

Set 1. type $*ql > pMn *kr = pHm *ql$

Set 2. type $*qr > pMn *kr = pHm *[l]$

Set 3. type $*ql > pMn *kl = pHm *k, *NG$

I choose $*qr$ for pMn type A and $*ql$ for type B, largely in order to retain $-r$ in Set 2. Cf. earlier discussion of SIX. The “back l ” $*[l]$ remains for Set 3.

What about the labial clusters: is there also a $*p[l]$ type?

Wang and Mao indeed reconstruct both l ’s as medials in pH -M clusters with labial and uvular stops.¹³ I will not go into the full extent of Wang and Mao’s reconstruction here, nor into its relation to its predecessors of 1994 and 1979. With labials, the full three-way contrast occurs after $*p$ - only. The contrast $*pl:p_l$ is supported principally by EHm $[l:l]$ and by the ever-reliable ZD, which has $p\check{z}:p_l:p_l$, as in the following three etyma:

	EHm	NHm	WM: ZD	pHm
FIVE	tsa ¹	pʒa ¹	pʒi ^{1a}	*pr[3]A
FOUR	lu ¹	pʒɛi ¹	plɔ ^{1a}	*pl[16]A
B.HAIR	lu ¹	pi ¹	p[ɔ ^{1a}	*pl[16]A

Note especially that FOUR and B.HAIR (‘body hair, fur, feather’) are a minimal pair at the pHm level.¹⁴ Interestingly, although the two are homophones in YM and KM as well, BM shows a distinction in the rhyme:

	YM	KM	BM
FOUR	pjəi ¹	piêy ¹	pləi ¹
B.HAIR	pjəi ¹	piêy ¹	pli ¹

The distinction in the BM rhyme could, of course, reflect a distinction either in the $*rhyme$ or in the preceding $*consonant$. The latter is more likely, since in general the BM rhyme system seems to be the result of various mergers operating on a more YM-like system; however not enough is known at present to rule out the possibility that BM may preserve some distinctions lost in the YM rhyme system.

Wang and Mao reconstruct labial + $[l]$ in five sets, but BODY HAIR is the only set including both Hmongic and Mienic cognates.

¹³ Wang also has $[l]$ in a series of retroflex stop-liquid clusters, written $tl_o d_l$ and so on. This liquid is non-distinctive; there are no contrasting $tl tl tr tr$ etc.

¹⁴ The variation between ei and i in NHm is said to be a regular development of $*rhyme$ [16], conditioned by the initial (Wang p. 160).

Finally, Wang reconstructs contrasts $*ql:q\check{l}$ and $*Gl:G\check{l}$ plus the same pairs with medial -w- ($*qlw:q\check{l}w$, $*Glw:G\check{l}w$). These distinctions are much less well-supported than those discussed above, principally because ZD, so dependable in distinguishing $*\check{l}$ from $*l$ and $*p\check{l}$ from $*pl$, merges the putative $*q\check{l}$ and $*ql$ (as \check{l}) in six of the seven etyma with $*q\check{l}$ (the seventh does have ZD \check{l}). The burden of the distinction then falls on EHm, in which its reflex is the unreliable $l:\check{l}$, and on NHm, which has cognates of only two of the 7 $*q\check{l}$ etyma, and each of those has a different initial.¹⁵

To summarize, Wang's $*\check{l}$ with uvulars and Purnell's $*l^2$ can be dispensed with, but at the proto-Hmongic level it is indeed possible to reconstruct three liquids, both as simple initials and as medial following labial stops:

l		r	l
p	pl	pr	p\check{l}
q	q\check{l}

As we have already discussed, at the pHm-Mn level correspondence Set 2 may fill in the missing $*qr$, which leaves $*q\check{l}$ to be assigned to Set 3.

r		l	l
p	pr e.g. FIVE	p\check{l} e.g. RICEPLANT	p\check{l} e.g. B.HAIR
q	qr e.g. SIX (Set 2)	q\check{l} e.g. DOG (Set 1)	q\check{l} e.g. ROAD (Set 3)

4. A NOTE ON THE VELAR:UVULAR CONTRAST

Tracing some pHm $*k$ to clusters (Set 3 above) raises the possibility that the entire Hm contrast of velars with uvulars may be a conditioned development of a single pH-M velar series, such that pH-M velars become pHm uvulars except

1) before medial r and \check{l} (going to pHm types $*t\check{l}$ and $*k$ respectively), depending on the liquid in question);

2) under some other condition, perhaps involving front vowels/glides, to account for pHm velars with no evidence from Mn of a medial liquid. The choice of $*\check{l}$ for velar-cluster Set 3 is consistent with this hypothesis: a "back l" is appropriate as the agent exempting velars from the otherwise general Hm shift to uvulars; i.e. $*k\check{l} > k$ versus $*k > q$.

This would resemble Lahu (Matisoff 1973: 8), which has:

¹⁵ Interpreted by Wang as complementary distribution, but this of course can only be a stopgap measure when dealing with a total of two forms.

<i>pLB</i>		<i>Lahu</i>
*velars	>	post-velars
*velars + r	>	velars
*velars + j, *palatal affricates	>	palatal affricates

Judging from a collection of the reconstructed forms in his 1982 paper, Downer uses the following schema:

pH-M	Hm	Mn
q	q	k
k	k	ky
ky	tɕ	ts, ky

Downer refers to “the specifically Yao development **k- > ky-*” (p. 16), but of the seven etyma exemplifying this development, four (HORN, HOT, ROAD, STABLE/PEN) are found in my Set 3 and thus include liquid medials; the other three have palatal elements in their rhymes (in Downer’s pH-M *reconstructions, PINCERS **gi:m^A*, FOWL **kai^A*, DEER/MEAT **ngai^A*). In other words the Mn distinction k:ky, taken by Downer to reflect a pH-M contrast, is at least partly a conditioned variation, suggesting the following revision of Downer’s schema:

pH-M	Hm	Mn
k	q	k
kɭ	k	kl (> YM kj, č)
k+i...	k	kj, č
kj	tɕ	ts, kj, č

This schema obviously depends heavily on elucidating the conditioning factor responsible for the third correspondence set Hm *k* = Mn *kj*.

5. BEYOND THE MONOSYLLABLE

The undeniable presence of both [l] and [ʎ] in ZD notwithstanding, phonological systems with two contrasting places of articulation for laterals and/or with three contrasting places of articulation for liquids are not common in the world’s languages. All other things being equal, a reconstruction that brings the protolanguage closer to phonological realism is to be preferred. Such a preference weighs in favor of the account just given of the velar-uvular

contrast as conditioned variation. In the case of the liquids and clusters, it would be better if we could account for facts described herein without resorting to reconstructing three liquids for *pH-M*. Martha Ratliff (1995) has presented just such an account for the simple liquid initials.

Ratliff proposes that the **l* described above is better reconstructed as **r*, and that the **r* of the above and previous reconstructions can be reconstructed as the same **r* as conditioned by a preceding obstruent or obstruent-initial syllable, largely unattested within H-M (I favor the term *preinitial* for these). I.e:

Purnell, Wang, Chang	Ratliff
<i>*l</i>	<i>*l</i>
<i>*l̥</i>	<i>*r</i>
<i>*r</i>	<i>*C(V)r</i>

To substantiate the preinitial **C*, she adduces likely cognates from outside of H-M, principally Chinese. Note that such cognates are relevant, whether one interprets them as loans in either direction or as inherited in both families (I favor the former interpretation).

The following chart gives three of Ratliff's examples with preinitials. "Old style" means a *pH-M* reconstruction with either two or three liquids (the third liquid—**l̥*—is subsumed in **l* in the two-liquid reconstruction). Ratliff's reconstruction is from the 1995 paper. Old Chinese reconstructions given are Karlgren's (*Grammata Serica Recensa*) and Baxter's (Baxter 1992). Baxter's **C-* is an unspecified consonant.

	<i>pH-M</i> initial and tone	<i>pH-M</i>	Chinese	OC	OC
	(old style)	(Ratliff)	cognate	(Karlgren)	(Baxter)
DRAGON	<i>*r</i> (A)	<i>*g-ron^A</i>	龍	l̥iung	C-rjoŋ
ARTEMISIA	<i>*r̥</i> (A)	<i>*kh-ron^B</i>	蕪	gl̥iu	C-rjo
GOOD	<i>*ʔr</i> (C)	<i>*k-rVŋ^C</i>	良	liang	C-rjaŋ

This approach is definitely higher in phonological realism than the three-liquid reconstruction. Ratliff's proposal may be extended to deal with the velar and labial clusters as well, specifically by adding a set of velar preinitials before *l*, and a set of labial preinitials. Below is an outline of this extension, displaying (1) the proposed reconstruction type, with voiceless unaspirated stops and voiced liquids standing for all manners (e.g. *p* stands for **p ph b, r* for **ʔr r̥ r*, and so on) and velar stops rather than uvular, assuming an account

like that given in section 4 above; (2) an emblematic H-M etymon, in the three-liquid reconstruction outlined in 3.1.2 above (the reconstructed rhymes are for illustration only).

pl * <i>mblau</i> ^A RICEPLANT	pr * <i>ploi</i> ^A B.HAIR	p-r * <i>plau</i> ^C HOUSE
l * <i>ja</i> ^A MOON	r * <i>ʔja</i> ^B HARE	k-r * <i>rɔŋ</i> ^B VILLAGE
kl * <i>klu</i> ^B DOG (Set 1)	kr * <i>krat</i> ^D LAUGH (Set 2)	k-l * <i>kloŋ</i> ^A HORN (Set 3)

Many details remain to be filled in. Type **pr* has only one etymon, B.HAIR. A possible **p-l* is missing, although it may be represented by the problematic set 'head':¹⁶

EHm	NHm	WHm (SM)	WHm (ZD)	Bunu (Yaoli)	Pahng	YM (Luoxiang)	KM (Liangzi)	BM
fhu ³	pzei ³	fau ³	wɔ ^{5b}	vɰja ³	pfi ³	pje ³	pjei ³	pli ³

More importantly, the preinitials as set out above do not behave consistently. That is, the **k-r* type nearly always drops its preinitial in H-M, whereas **p-r* and **k-l* retain the preinitial and tend to lose the medial (recall that **k-l* becomes Hmongic **k*, contrasting with **q*). Also, **k-r* finds most of the support for the lost preinitial outside of Hmong-Mien. We need some evidence for the complementary development: that the preinitials of **p-r* and **k-l* can drop. One bit of evidence is pH-M **mbrat* 'hot, spicy', of the **p-r* type, which may be cognate to Chinese 辣 *là* 'id.' Baxter reconstructs OC **C-rat* for this word, where the lost **C-* may be precisely the preinitial that survives as initial in H-M.¹⁷ Similarly, HORN, of the **k-l* type, strongly resembles the widespread Tibeto-Burman etymon **ruŋ*^A~*rwaŋ*^A, which has reflexes attesting both the simple initial *r* and a velar prefix, e.g. Garo *q-roŋ*.

¹⁶ Wang and Mao split this into two etyma: HEAD₁ is Hmongic only, HEAD₂ Mienic only. The split is solely due to the initial correspondence; the pH-M rhyme and tone are identical.

¹⁷ This is something of an area word; cf. Northern Tai **jaat*, Southwestern/Central Tai **phet*, possibly also Pa-O (Karen) *hát*, Eastern Kayah Li *hé*.

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